EHS Services, Inc.
Environmental, Health, Safety, and Quality Management

VIA FAX

July 14, 2003

Mr. Maurice Banks
Buildings Management Specialist
U.S. Department of the Interior
1849 C Street, NW, Suite 1221
Washington D.C. 20240

Subject: Water Sampling Results: June 28, 2003

Dear Mr. Banks:

Personnel from EHS Services, Inc. obtained 27 samples of drinking water from nine locations within the South Interior Building between approximately 9:00 AM and 10:00 AM on Saturday, June 28, 2003. We analyzed 18 samples for lead content, and nine samples for bacteria content. The building was unoccupied, except for several security personnel, at the time we collected the samples.

Methodology

One of the purposes of this study was to determine whether any bacteria were present in the source water. Therefore, we first sprayed a solution consisting of 1 part sodium hypochlorite (in a 5.25% solution) to 10 parts water on the water outflow to neutralize any bacteria present on the outflow piping. Next, we collected the water sample to be analyzed for lead content using the "first draw" technique where we captured the water initially coming from the fountain in the sample bottle. Then, we allowed the water to flow for more than one minute after which time we collected a "second draw" sample. We then thoroughly rinsed the outflow to remove any residual disinfectant solution before obtaining the water sample to be analyzed for bacteria.

Fredericktowne Labs, Inc., located in Myersville, Maryland (Maryland Certification No. 116), analyzed the samples. Hank Frentz collected all samples. His Maryland Certification Number is 0108-00530.

Table 1 presents the analytical results. "Location" refers to the room near the fountain(s) where we obtained the samples.

Results

There were no exceedances of the Environmental Protection Agency's most restrictive Action Level for lead in drinking water (15 ppb).

Bacteria (heterotrophic plate counts-HPC) ranged from below the laboratory detection limit of one colony forming unit per milliliter of water to three colony forming units. The HPC measures a broad group of bacteria including nonpathogens, pathogens, and opportunistic pathogens. These organisms are ubiquitous in the environment, and are usually the predominant group of bacteria in finished water. High quality supplies meeting coliform standards usually contain less than 500 HPC organisms per milliliter. Five hundred colonies per milliliter has been suggested as an upper level above which corrective action should be taken (American Water Works Association, Water Quality and Treatment, Fourth Edition, 1990).

The results for the total coliform bacteria analyses show that all results were below the laboratory detection limit of one organism per 100 milliliters of water. The Primary Drinking Water Standard for total coliform bacteria is one organism per 100 milliliters of water.

Recommendations

We see no need for additional sampling of these fountains at this time.

Thank-you for the opportunity to assist you with this project. Please call me if you have any questions.

Sincerely,

Hank Frentz
Principal

HF/dim

TABLE 1
RESULTS OF DRINKING WATER ANALYSIS – DEPARTMENT OF INTERIOR
JUNE 28, 2003
(all samples were from the South Interior Building)

LOCATION*	LEAD[1] FIRST DRAW	LEAD[1] SECOND DRAW	HPC[2]	TC[3]
20	5	4	1	BDL
25	4	3	2	BDL
125	4	3	BDL	BDL
225	4	5	3	BDL
225 Handicap	4	4	1	BDL
236	3	5	1	BDL
325	5	3	1	BDL
325 Handicap	3	3	2	BDL
Auditorium	8	4	1	BDL

Key:

* Samples were obtained from the fountain(s) near the stated room.
1 Lead concentration in parts per billion (ppb). Detection Limit is 1 ppb. EPA Action Level is 15 ppb.
2 HPC: heterotrophic plate count Detection limit is one colony forming unit per milliliter of water.
3 TC: total coliforms Detection limit is one organism per 100 milliliters of water.
BDL Below detection limit